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ABSTRACT

During the 1978-79 school year, a survey was conducted of several New York State school districts, fifty-seven public and private two-year colleges, eight Educational Opportunity Centers, and thirty-six correctional institutions within the state. The secondary and postsecondary school level surveys focused on past use of and interest in computer-based guidance systems. Survey results indicated that experiences with computerized college and career information guidance systems in high schools and in two-year colleges in New York State are remarkably similar. Half of the respondents were using an automated system during 1978-79, and most of these had been involved for more than a year. The Guidance Information System (GIS) was the system most frequently used in both high schools and colleges. Based on the results of this survey, suggestions were made to install a statewide computer guidance system. The correctional institution survey focused on the needs of the incarcerated population for educational services and how these needs were being met. Twelve of the fourteen responding correctional institutions had male inmate populations and two had female. Data was collected on educational facilities, classroom space, instructional resources, and inmate participation in educational activities. The results indicated that a large proportion of the inmates are involved in educational activities and that there is a broad range of educational programs offered. Relatively few institutions obtained funds of their own to conduct special programs, although all were involved in cooperative arrangements with external agencies. (BM)

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COMPUTER GUIDANCE AND OTHER SELECTED EDUCATIONAL PRACTICES IN SECONDARY, POSTSECONDARY, AND CORRECTIONAL INSTITUTIONS IN NEW YORK STATE

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in cooperation with the
Bureau of Grants Administration
The New York State Education Department
University of the State of New York

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FOREWORD

The Institute for Research and Development in Occupational Education (IRDOE) has been concerned with the delivery of occupational information since 1972. At that time Citibank and IRDOE began exploring means of enhancing guidance activities in New York City high schools, and recognized that a most economical use of counselors' time was possible if clerical and other non-professional chores were achieved by other means. Computer-assisted guidance, i.e., having a computer perform the retrieving and collating functions relating to occupational information needs, could reasonably free counselor time for more professional counseling activity in addition to providing accurate, timely, and complete information needed in the guidance process.

A feasibility study was funded by Citibank, wherein IRDOE implemented computer-assisted guidance in five New York City high schools. So successful were initial efforts that the Institute, under a grant from the New York State Education Department (SED) Bureau of Two-Year College Programs (now, the Bureau of Grants Administration) introduced the concept to community colleges and, later, to correctional institutions.

With a growing acceptance of the concept, evidenced by the number of independent implementations by LEA's and BOCES operations, it became apparent that serious consideration should be given to statewide implications of the phenomenon. That is, could economies be effected and improvements in the system be implemented or facilitated for the constituencies utilizing the concept? And could those that were not currently utilizing the idea be better prepared to undertake such programs if evidence of benefits were provided?

Accordingly, IRDOE undertook to survey the uses and knowledge of computer-assisted guidance in secondary and postsecondary institutions in New York State. It is hoped that the data reported herein will serve planners in their future endeavors in this regard.

Lee Cohen, Director
Institute for Research and Development
in Occupational Education

ACKNOWLEDGMENTS

We hope the results of the surveys described in this report are as helpful to administrators of local educational institutions and to State Education Department policy-makers as these people were to us.

We would like to thank Mr. Mike Van Ryn, Chief, and Mr. Michael King, Education Aide, Bureau of Grants Administration, and Mr. William Boudreau, Supervisor, Division of Occupational Education Supervision, New York State Education Department. Beyond funding, their support took many forms for which we are sincerely grateful.

The interest on the part of school district superintendents, deans and directors of public and private two-year colleges, and superintendents of the State's correctional facilities is reflected in their response to our inquiries for information. Although there were too many to thank by name, their individual cooperation is gratefully acknowledged.

Dr. Lee Cohen, Director of the Institute for Research and Development in Occupational Education, continued to give us the encouragement we have come to rely on, and in this respect, was ably assisted by Ms. Melanie Bentley.

Truly, however, the real credit goes to the project staff who sealed envelopes, kept lists, tabulated data, designed tables, and drafted, edited, and typed this report. The contribution of Ms. Carolyn Weber and Dr. Rita Senf is noteworthy. Ms. Weber kept our records and prepared this manuscript. Dr. Senf's talent for presenting complex data in a simplified, convincing format will be appreciated by all readers.

We, of course, accept full responsibility for the summary data presented, as well as for the interpretations.

Barbara R. Heller,
Project Director

Fred G. Wheeler

Linda Gross

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COMPUTER GUIDANCE AND OTHER SELECTED EDUCATIONAL PRACTICES IN SECONDARY, POSTSECONDARY, AND CORRECTIONAL INSTITUTIONS IN NEW YORK STATE

This report summarizes the results of three separate surveys undertaken in 1978-79 by the CASE Institute for Research and Development in Occupational Education (IRDOE). The original grant[1] for a consortium to plan a New York State-wide computer-based occupational information system was awarded in October 1977 but, as a result of events which occurred in New York City that year, the funds were carried over until August 1979.

These events, which are described in more detail below, not only affected the time frame governing the work to be performed under this grant but its substance as well. Thus, as a consequence of the rekindled interest in computer-based guidance systems in late 1977 on the part of the Board of Education of the City of New York, IRDOE and the Bureau of Grants Administration of the New York State Education Department agreed that a formal survey of the state of the art of computer-assisted guidance would satisfy the intent of our grant and provide a basis for other programmatic activities.

In November 1978, IRDOE mailed a questionnaire to secondary school districts in New York State, followed in January 1979 by a similar survey of postsecondary vocational education institutions. Subsequently we decided to address the State's correctional institutions, several of which were previously involved or interested in computerized occupational information services. This report presents these results, following a review of their historical context, which traces developments in general and in high schools and community colleges in New York State in particular.

HISTORICAL OVERVIEW

By the mid-1970's interest in computerized delivery of guidance information and services was at a high level nationally. There had been a decade of use of computer-based systems at local levels, and with impetus from the U.S. Department of Labor, selected states had begun to design and implement comprehensive programs to provide occupational-educational-job market information to a variety of in-school and out-of school audiences.

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[1] VEA #78-3D-322PS.

Computer-assisted guidance systems became practical in the early 1960's and efficient a few years later with technological refinements. As they developed, high schools and colleges adopted them to enable students to explore career and training (college) options and to provide students with a basis for improved decision-making. These systems also served the interests of counselors, freeing them from the drudgery of collecting and sorting accurate information, thereby allowing them more direct contact with clients.

The 1960's saw a proliferation of computerized models. Among the best known, and still operational, of these is the Guidance Information System (GIS), which was developed at Harvard University under the name Interactive Learning System or ILS. GIS is perhaps the only one of the major systems marketed nationally by a proprietary organization--Time Share Corporation, an affiliate of Houghton-Mifflin. Another well-known system, CVIS, the Computerized Vocational Information System, was developed in an Illinois high school, and a consortium of user groups continues to support it in schools across the nation. Other early systems include ECES, the Educational Career Exploration System, a product of IBM; VICS, designed for the Philadelphia Public Schools; and TCISS, Bartlesville, Oklahoma's public schools' Total Guidance Information Support System. All these systems contain, at a minimum, college and career information designed for either a local or a national audience.

The end of the decade witnessed two other important systems--Project DISCOVER, a sophisticated outgrowth of CVIS, designed at Western Maryland College by one of the originators of CVIS, and SIGI. SIGI, the System of Interactive Guidance and Information, was produced by the Educational Testing Service and, in terms of its on-line capacity, probably attempts the most complex guidance functions--value clarification, personal planning, and career decision-making.

As practitioners became familiar with these computer systems, which initially were primarily informational in intent, the population of users became more diverse. With the exception of Project DISCOVER and SIGI, targeted at 2-year and 4-year college students[1], the other systems were designed for the secondary level, although they were used by college

[1] DISCOVER was created for junior high school students, but it was most widely tried out with a college population. Today, DISCOVER has a college version as well.

students, inmate populations, and out-of-school adults. As use became more widespread, the systems themselves changed. By the end of the 1960's they had the capacity to perform more complex counseling and management functions, so that when the Department of Labor made available start-up funds for comprehensive statewide programs, there were already several prototypical systems in use and an experienced and interested audience.

The first comprehensive system to be developed by the Department of Labor, under its National Occupational Information System (NOIS) project, was the Career Information System (CIS), which has been operational in Oregon since 1972. The NOIS program also sponsored the replication or development of similar programs in eight states--Alabama, Colorado, Massachusetts, Michigan, Minnesota, Ohio, Washington, and Wisconsin. Several other states, including Maryland, New Jersey, Iowa, Tennessee, and Illinois, have started comparable efforts, either on their own or with support from sources such as the Fund for the Improvement of Postsecondary Education. It is interesting that most of these state systems are based on CIS or GIS.

Although schools in New York State were known to be users of computer guidance systems in the early 1970's, it was not until late in the decade that there was serious consideration given to a statewide information system. This initially took the form of two State Education Department grants--one from the Bureau of Grants Administration to IRDOE and one from the Office of Occupational Education Supervision to the Board of Education of the City of New York (Center for Career and Occupational Education). Despite the fact that these grants were to some extent complementary, the timing of the critical events was such that they were conducted independently.

Computer-Based Guidance: Demonstration Programs in New York City

The history of computerized guidance services in New York City goes back several years. The first mention was in 1972 in a report prepared by the Guidance Advisory Council for the Board of Education.[1] After briefly describing computerized information retrieval systems and the use of one such system by the Suffolk County BOCES III, the Council recommended try-out in the City's public high schools. It was not insignificant that the

[1] Agenda for Action. A report of the Guidance Advisory Council to the Board of Education of the City of New York. July 31, 1972, p. 107.

chairperson of that Council was a vice president at First National City Bank, for within a year of the report's publication, the Board and the Bank invited proposals for a demonstration of a computer-based educational and vocational information program to serve students in New York City high schools.

The high school project. IRDOE was awarded the demonstration grant and in November 1973, under the joint sponsorship of First National City Bank (Citibank) and the Board of Education of the City of New York, initiated the City's first computer-based guidance project.[1] Under the terms of the original grant, which covered the period through December 1974, IRDOE was to select a computerized system, manage and direct its installation and use, and assess the feasibility of this mode of providing educational and vocational information to 11th and 12th grade students in five high schools chosen as pilot sites.

Using the Guidance Information System (GIS), the original grant period enabled IRDOE to install the system and answer questions related to feasibility. Thus, for example, at the end of the first 14 months we had developed and implemented procedures for dealing with hardware malfunctions, could estimate telephone and other peripheral costs such as teletypewriter paper, and designed a training program for supervisory personnel, including professional and paraprofessional staff and peer-student monitors. We collected data on the number of hours a day schools made use of the system, the number of students served per time period, the type of interaction students had with the system, and other details, such as the specific questions about which students sought information. And we were also able to assess the adequacy of the component GIS data bases and of their communications arrangements.

The high school project was extended twice. The first extension--from January through June 1975--was in response to clearly evident effectiveness, as demonstrated by ease of use and by the large number of students who participated. The second extension, through June 1976, afforded IRDOE project staff time to assess the direct effects of the computer experience on students' knowledge of career and college information and

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[1] B.R. Heller and L. Chitayat, Computer-Assisted Guidance in New York City High Schools: A Demonstration of Feasibility and Impact on Students. CASE 41-76, November 1976. ED 140 150.

their ability to organize this information and understand the decision-making process.

In these respects also, the high school project was successful. It served a large number of students, as well as parents and other community groups. School staff and administrators were enthusiastic. Computer-assisted guidance was variably but well integrated into each school's ongoing operation. There were direct benefits to student users, including significantly better vocabulary and decision-making skills than for nonusers. Furthermore, the indirect ways in which the participating schools profited were of enormous importance, and the number of related projects generated as a spinoff provided convincing arguments that computer-assisted guidance in New York State merited serious attention.

Another major purpose of the second extension was to allow the concerned agencies time to explore ways to institutionalize computer-assisted guidance services in New York City secondary and postsecondary educational institutions.

Expansion to postsecondary institutions. In July 1974, the then Bureau of Two Year College Programs of the New York State Education Department funded IRDOE's proposal for a demonstration of computer-assisted guidance at the college level.[1] Four City University of New York (CUNY) community colleges participated, using the GIS system. The results of the first year, although not as dramatic as the outcomes in the high schools, were encouraging and the project was refunded for the 1975-76 academic year.[2]

In the second year, three of the original four community colleges were involved, plus a new CUNY community college and a continuing education center. Considering only the three schools in which there was continuity, use of the computer in the second year increased by 93 percent. Examining the accumulated experience, the directors concluded that at the college level a relatively long period of time is needed to introduce the computerized

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[1] VEA #75-2-587. B.R. Heller. A Demonstration of a Computerized Information System in Four Urban Community Colleges. CASE 20-75, September 1975. ED 121 373.

[2] VEA #76-2-421. L. Chitayat, A. Jaffe, and B.R. Heller. A Continuation of the Demonstration of Computerized Occupational Information Dissemination in Four Urban Colleges. CASE 38-76, August 1976. ED 140 149.

system to the counseling staff and to integrate it into an organizational structure which is more complex than that of a secondary school.

With the intention of understanding problems associated with start-up issues and counselor resistance, IRDOE applied for and received two grants for the following year: one to improve the use of the system in two-year colleges[1] and the other to initiate a similar program in state correctional institutions.[2] Both projects provided a clearer appreciation of how administrative and organizational factors influence the conduct of an educational program that involves equipment, retraining, and the integration of new resources.

By the end of 1977 when IRDOE received the current grant to begin to coordinate similar activities in New York State, we had had several years of first-hand experience with the operation and evalutation of a computerized information retrieval system (GIS) in seven different post-secondary institutions (one State University of New York and six CUNY community colleges), five public high schools, and five correctional facilities. During this four-year period we helped to plan CUNY's Computer-Based Educational Opportunity Center program (CBEOC), which has been federally supported since the middle of 1974 and have, over the years, acted as informal consultants to its directors, CUNY's Office of Admission Services (OAS). We have also been advisors to the computer component of the Bronx Career Counseling and Resource Center operated by the Board of Education.

Computer-Based Guidance: Citywide Systems

As stated above, a major purpose of the final year of IRDOE's computer-assisted guidance project in the high schools (1975-76) was to give the agencies concerned with the pilot program information to plan for Citywide adoption of a system while one remained in operation. IRDOE, the Board of Education of the City of New York, and Citibank were committed to the concept, and activities aimed at fulfilling this purpose occurred throughout the year. Detailed plans were proposed and several alternatives were considered; but

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[1] VEA #77-2-381. L. Gross, R. Fisher, and B.R. Heller. A Modified Approach to Improve the Use of a Computerized Information Delivery System in Two-Year Colleges in New York State. CASE 16-77, July 1977.

[2] VEA #77-2-380. B.R. Heller and L. Gross. Computerized Vocational Information and Decision-Making in Secured Environments in New York State. CASE 09-77, July 1977.

problems of coordination, control, and communication among agencies remained unresolved that year.

As one result of our evaluation, IRDOE concluded that GIS was a more than adequate although less than perfect vehicle. Two of the four GIS data bases (the two-year and the four-year college files) were complete and accurate, and the occupational file had extremely good possibilities; but the financial aid data file, similar to others we had examined, was neither complete nor appropriate for our target population. Among the advantages of GIS were its large storage capacity, its history of successful use, its flexible and adaptable software, and an excellent communications network. Moreover, there was relatively little problem with equipment malfunctions; the teletypewriter printout was attractive and highly motivating; and the program (software) logic was compelling, permitting alternative types of use by both students and staff. The major difficulty was that, since Time Share Corporation owned GIS, it was available only on a leased basis. Nevertheless, even within the confines of the lease restrictions, use of GIS Citywide remained a strong possibility.

Another alternative was to develop a package that would be the property of the City school system. This was a viable possibility--because a new system could be designed to accommodate to specific conditions in New York City: its student population, types of sites, and limitations of funds, personnel, and other resources required for implementation and maintenance. To further this possibility, with the encouragement of the Board and Citibank, in 1975-76 IRDOE proposed Project ACCESS (Automated Career, College, Educational, and Scholarship Search). With the assistance of Citibank's systems analysts, IRDOE drafted a prospectus for consideration by all parties, which incorporated a total design for a new, more effective computerized guidance program that targeted on the assessed needs of the high school student and provided a complete and educationally sound data base. The proposal listed objectives for the entire system; its parameters, including criteria such as validity of records (i.e., data); relevance of taxonomy; comprehensiveness of subsystems; potential for expansion; program logic; hardware alternatives; output specifications, including sample output records; and a timetable for development as well as a procedure for updating the information. In addition, the prospectus

included a description of alternatives available for each of the three major elements--the data bases, including the classification taxonomies; the software, including both computer logic and programs; and the computer hardware and peripheral equipment.

The review of Project ACCESS with various departments and divisions of the Board of Education and Citibank continued throughout the 1975-76 school year. There was unanimity that its scope and content were acceptable and that the schedule for development was realistic. Citibank was prepared to fund at least the major portion of the cost of the research and development activity, and the Board's Office of High Schools was committed to its trial use, which involved expenditures for staff and telephones. A minor problem arose with regard to long-term action on the part of the Board: because Citibank's costs for the creation of ACCESS would be large and because the Office of High Schools could not commit funds on other than a year-by-year basis, the Bank was hesitant to start a project of this magnitude. In retrospect, we believe that this problem was surmountable, and that the basic difficulty resided in issues related to hardware and control.

Although Project ACCESS was designed to be put up on alternative hardware configurations--of which one would be compatible with the Board's existing IBM computers--the optimal configuration required a dedicated mini-computer (i.e., a small computer set aside solely for this use). Neither the Board nor the Bank wanted to invest in such a computer; as a result, a critical question arose of whether or not the equipment the Board had could accommodate ACCESS. Systems specialists from the Board, Citibank, CUNY's Graduate School, and CUNY's Central Computer Facility, as well as representatives from IBM, wrestled with this question and could not agree on the amount of extra storage required, the degree of downgrading ACCESS would cause, or the number of possible simultaneous users. As a solution, CUNY agreed to donate its computer facilities to IRDOE and the Bank at no cost for the development stage, and to the Board once ACCESS was operational.

However, the Board's newly established Bureau of Information Management and Data Processing continued to raise questions about the computer configuration and costs of purchasing or leasing software packages and additional hardware. The Bank's specialists, in turn, remained skeptical about whether

the City Board could indeed maintain the system. CUNY's offer of computer services did not prove satisfactory to the Bureau's staff, who remained concerned and interested but nonfacilitative nevertheless.

Interestingly, within the year these problems were resolved in a different manner. In December 1977, the Board of Education of the City of New York passed a resolution creating a new organization, Metrolab, the Metropolitan Educational Laboratory, which consists of an Educational Computer Center and an Instructional Management Center. A primary function of this new organization was to develop, implement, and support a network "to provide... guidance information and other educational services... to schools and districts in New York City and the New York metropolitan region."[1]

One of the major responsibilities of Metrolab, as outlined in its proposal for State funding, was "the development and operation of a computerized career information system." Oregon's CIS was to be the basis of the effort. From its own city tax levy budget, Metrolab was to provide funds for "staff support and computer hardware, software, and time... to maintain the system." The State provided VEA funds to pay for some terminals and communication lines, and to cover the cost of "contracting with the Oregon Career Information System...."[2]

Computer-Based Guidance in New York State

It was also in 1977 that the State Education Department encouraged IRDOE to attempt to organize users of computer guidance systems. In October of that year, just prior to adoption of the Chancellor's resolution, IRDOE received a VEA grant to coordinate computer-based guidance and counseling activities in the State. At that time, despite the involvement of different private groups and state and federal agencies in computerized information retrieval systems, there was no centralized monitoring of user sites or programs. One consequence was that each time schools or districts started using a computer guidance system, they acted independently of one another, and had no easy way to take advantage of the accumulating knowledge

[1]Chancellor's resolution to the Board of Education of the City of New York for the "Establishment of the Metropolitan Educational Laboratory." Underlining ours; note that from its inception Metrolab extended outside the city.

[2]Metrolab. Proposal for VEA funding.

or to pool information. IRDOE's grant had two major objectives: (1) to ascertain the extent of use of and interest in such systems; and (2) to build on the momentum provided by the Department of Labor's National Occupational Information System project and lay the groundwork for some Statewide activity. With the resurgence of interest in a system for New York City, it was decided to limit activity to the first objective and to monitor other developments.

There was sufficient indication that various computer-based guidance systems were in use, or being contemplated, in New York State; that users were operating independently; and that no one person or agency knew enough about what was going on to intelligently request NOIS funds to help develop a comprehensive system. Through managing and evaluating our own activities and participating in professional conferences and invitational meetings with state and local administrators, IRDOE became aware of just how widespread use of these systems was in secondary and postsecondary institutions. For example, several of the big cities--Rochester, Buffalo, and Syracuse--were using GIS on a large scale. Smaller cities, such as the New Rochelle City School District and the Iroquois School District, were also GIS users. Furthermore, at least nine BOCES units leased GIS and rented it to an unknown number of affiliated school districts.[1] GIS was not the only computerized guidance system in use. CVIS had had extensive trials and SIGI was being aggressively marketed. And at least one private four-year college, Hamilton College (Clinton, N.Y.), was using a locally designed system. The CUNY Office of Admission Services' CBEOC was used by community organizations and in correctional facilities and was also serving other groups by telephone.

By centralizing information concerning past, current, and intended involvement with computerized information retrieval systems, IRDOE staff believed they would meet an important need and provide a valuable service.

THE CURRENT STATE OF COMPUTER-ASSISTED GUIDANCE

The following section presents the results of the three surveys IRDOE undertook during the 1978-79 academic year. The first survey was of secondary school districts; the second was of postsecondary educational

[1] Monroe-Orleans, Syracuse-Onondaga, Madison-Oneida, Albany; and Ulster, Broome, Westchester, Nassau, and Suffolk Counties.

institutions. Although the two survey instruments differed, their intent was similar: to ascertain, across the state, the extent of interest in and prior experience with automated systems that provide students and/or staff with information about careers and educational options.

The third instrument was sent to the correctional facilities in New York State. Here the primary objective was to provide the State Education Department with more adequate data about the educational needs of the incarcerated population and how these needs were being met.

Secondary School Survey

In November 1978, IRDOE sent a four-page questionnaire[1] to all secondary school districts in New York State, excluding the 32 community school districts comprising the New York City School System.[2] The questionnaire was addressed to district superintendents, with a request that it be completed by the "person in the district most familiar with computerized guidance activities... although we would also welcome the input of others knowledgeable about the district's computer hardware and the use made of computers in administrative and management functions."[3] From the information requested in the survey, we hoped to gauge interest in a state system and to begin to form committees, a consortium of school representatives interested in furthering computer-assisted guidance in the State.

Excluding New York City, there are 779 school districts in New York State; this total includes the 44 BOCES units, the 6 contract districts (i.e., districts with no schools which contract with other districts for educational services)[4], plus an indeterminate number of districts without any secondary level schools.[5] We sent out 808 questionnaires, using

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[1] See Appendix A, "Computer-Based Guidance System Survey."

[2] New York City was excluded because we already knew the extent of the schools' involvement in computer-assisted guidance.

[3] From the IRDOE letter to the district superintendents.

[4] Code Manual for Public School Districts, New York State 1978-79. Published by the University of the State of New York / The State Education Department, Information Center on Education.

[5] A more accurate count cannot be made because the Code Manual does not identify which districts include secondary level schools.

address labels supplied by the State Education Department. The mailing included at least 29 duplicate addresses (808-779 = 29), as well as many districts with no high school, of which 17 returned a blank questionnaire, indicating that it was not applicable to them.

Description of respondents. We received a total of 335 completed questionnaires for an estimated response rate of 45 percent. This is probably an underestimated rate of response, considering the fact it is based on a mailing that included inappropriate recipients (i.e., districts with no high schools), many of whom may not have bothered to return a questionnaire. As can be seen in Table 1 below, 165 respondents (49% of the total responding) were involved with a computerized guidance system during the 1977-78 school year (hereafter called present users), and an additional 9 percent had had prior experience but were not users in 1977-78 (past users). The remainder (42%) had had no experience with any

TABLE 1

Respondents' Experience with Computer Guidance Systems, and Interest in a Consortial Effort

Interest in a Consortium	Present Users	Past Users	No Experience	Total Respondents
Yes	91 (55.2%)	18 (60.0%)	59 (42.1%)	168 (50.2%)
No	74 (44.8%)	12 (40.0%)	81 (57.9%)	167 (49.8%)
Total	165 (49.2%)	30 (9.0%)	140 (41.8%)	335 (100.0%)

such system. In terms of how many years a computer system had been operative, this duration was longer for present users than for past ones. Three-fourths of present users had been involved for at least one year or more: 1 year, 26 percent; 2 years, 13 percent; 3, 15 percent; 4, 12 percent; and 5 or more years, 9 percent. (Eleven percent of the present users did not respond.) More

than three-quarters (78%) of the present users had used a system continuously, without interruption, since they first became involved. In contrast, of past users, 30 percent had had experience with a system for only one year or less, 40 percent stopped after two years, and only 17 percent had three or more years of experience (13% did not answer the question).

One question asked which of a list of statewide committees or groups the person completing the survey would personally be interested in joining. (The respondent was also invited to suggest other people who might be interested.) The choices included groups to investigate: financial aspects, hardware configurations, network and communications, evaluation and research, system content, and the problems associated with the ongoing operation and supervision of a statewide computer guidance program. As can be seen in Table 1, overall, respondents were evenly divided--half were interested, and they either volunteered their own services or suggested other people; the other half were not interested personally and made no other suggestions. There was a total of 428 indications of interest on the part of respondents: more than half (53%) of those were made by present users, 14 percent by past users, and one-third (33%) by districts with no experience with computerized systems.

Almost one-quarter (24%) of the indications of interest singled out the committee devoted to content questions. The next most popular committee, accounting for 18 percent of the total recommendations, was evaluation and research, followed by finances (17%), operation and supervision (15%), network (14%), and hardware (11%). Two respondents expressed general interest, unrelated to any particular task group.

It is apparent from Table 1 that experience with a computer guidance system is likely to be positively related to interest in a statewide consortial effort: 58 percent of past plus present users said they would be interested in participating in the specified committees concerned with various aspects of putting together a statewide system. The reverse is true for those respondents who indicated that they had had no prior or current experience with computerized guidance. In considering this data, bear in mind that interest in participating on a committee and interest in seeing an automated system operative in the State are probably but not necessarily synonymous, although for ease we will use "interest" to cover both meanings.

Table 2 summarizes results for different types of respondents. The vast majority, 279 or 83 percent, were districts with a single high school; only 6 percent represented multi-high school districts. The 20 multi-school districts averaged 4 high schools, with a range between 2 and 14. Responses were also received from 18 BOCES, representing approximately 41 percent of all BOCES units.

In addition to describing the respondents in terms of the number of high schools in the district, Table 2 also includes an analysis of experience

TABLE 2

Type of Respondent in Relation to User Experience and Interest in Consortial Effort

Interest in a Consortium	Type of Respondent				
	Single School	Multi-School	BOCES	NR[a]	TOTAL
Present Users					
Yes	74 (55.6)	6 (50.0)	6 (54.6)	5 (55.6)	91 (55.2)
No	59 (44.4)	6 (50.0)	5 (45.4)	4 (44.4)	74 (44.8)
Total Present Users	133	12	11	9	165
Past Users					
Yes	12 (52.2)	2 (100.0)	1 (100.0)	3 (75.0)	18 (60.0)
No	11 (47.8)	0 -	0 -	1 (25.0)	12 (40.0)
Total Past Users	23	2	1	4	30
No Experience					
Yes	49 (39.8)	5 (83.3)	3 (50.0)	2 (40.0)	59 (42.2)
No	74 (60.2)	1 (16.7)	3 (50.0)	3 (60.0)	81 (57.8)
Total no Experience	123	6	6	5	140
TOTAL RESPONDENTS					
Yes	135 (48.4)	13 (65.0)	10 (55.6)	10 (55.6)	168 (50.1)
No	144 (51.6)	7 (35.0)	8 (44.4)	8 (44.4)	167 (49.9)
TOTAL TYPE OF RESPONDENT	279 (83.2%)	20 (6.0%)	18 (5.4%)	18 (5.4%)	335 (100.0%)

[a] NR = No response and responses too ambiguous to classify.

with computerized systems by interest in participation in the proposed consortium, for single high school, multi-high school, and BOCES units. Disregarding experience, single high school districts were almost evenly divided between those interested (48%) and those not interested (52%) in a consortium, whereas 65 percent of multi-school districts (and 56% of the BOCES units) were interested in statewide activity in this area.

The preceding data suggests that the type of system (defined as having either a single school or more than one high school) has some relationship to interest in a consortial effort, and interest in turn, is related to experience. Thus, multi-school districts have had relatively more experience with computer guidance systems; although the multi-school N is small, 70 percent of these as compared with 56 percent of single school districts are experienced. But regardless of experience, multi-school districts tend to be more interested in the idea of consortium. Single school districts, on the other hand, are more equally divided with respect to current and/or prior experience, and those with no experience express relatively less interest in a coordinated statewide program.

Of the two other demographic analyses we conducted, one by size of enrollment in the responding districts and one by grade levels in the schools, only the former is meaningful. The following presentation is based on 314 districts; the 18 BOCES are not included nor are 3 districts that responded after the cut-off date.[1]

As can be seen in Table 3 on the following page, these 314 districts contain a total of 360 secondary level schools that range in enrollment from less than 100 students to more than 1000. Somewhat over two-thirds (68%) of the schools have a student enrollment of 500 or more. As has been noted above, experience with computer guidance is related to interest, and this still holds true when size of student enrollment is examined. It is also apparent that, irrespective of experience, districts with schools serving larger numbers of students tend to be much more interested in participating in a statewide effort to put together a computer system than those with smaller enrollments. This permits two interpretations which are not necessarily mutually exclusive: the districts with larger schools may be more political--that is, more concerned with being

[1]The total number of respondents, including the BOCES, equalled 335; three questionnaires were received too late to be included in this and all subsequent analyses.

TABLE 3

Interest in Consortium as Related to User Experience and Size of Student Enrollment in 360 Secondary School Respondents

Interest in a Consortium	Size of Student Enrollment					
	Less than 100	100-499	500-999	1,000 or more	NR	Total Schools
Present Users						
% Yes	75.0	45.2	58.5	60.0	--	57.1
% No	25.0	54.8	41.5	40.0	100.0	42.9
Total N Schools	4	31	41	100	1	177
Past Users						
% Yes	--	44.4	77.8	80.0	50.0	62.5
% No	100.0	55.6	22.2	20.0	50.0	37.5
Total N Schools	2	9	9	10	2	32
No Experience						
% Yes	36.4	39.3	40.0	67.4	100.0	47.7
% No	63.6	60.7	60.0	32.6	--	52.3
Total N Schools	11	56	40	43	1	151
TOTAL SCHOOLS SERVED						
% Yes	41.2	41.7	52.2	63.4	50.0	53.6
% No	58.8	58.3	47.8	36.6	50.0	46.4
TOTAL N SCHOOLS	17	96	90	153	4	360

part of things going on in the state; and/or larger schools may find it more difficult to provide adequate guidance services to students without recourse to additional, non-personal resources.

Familiarity with specific systems. The survey questionnaire listed five of the best known systems--CVIS, GIS, SIGI, Project DISCOVER, and CIS (QUEST), and asked, for each of the five, whether it was currently in use, had been used in the past (but not now), had not been used but had

been considered, or was unfamiliar to the respondent. The results for each of the systems, summarized in Table 4 on the following page, are based on 162 present users of some system(s), 30 past but not present users of some system(s), and 140 who never used any system--a total of 332 respondents to each system, or 1660 (5 x 332) responses for all five systems.

Before inspecting the data, some general orientation and comments may be helpful. First, the numbers in each column (a column represents a system) total 332, showing the experience of all respondents with respect to a particular system. Second, the percentages shown were calculated across systems so that we could compare the five. That is, the rows add up to 100 percent.

Line 1 of Table 4 shows that there were 186 instances of current use of the five systems. GIS was by far the most widely used of these (84%); another 14 percent were current users of CVIS. There were almost no users of SIGI or CIS, and none of DISCOVER.

As we indicated before and as can be seen in line 1, some respondents were currently using more than one system: for the 162 present users, there were 24 (186-162) instances of multiple system use; and it is obvious that those currently using more than one system were likely to be using GIS plus CVIS. Similarly, for the 30 past users, the line 6 total of 33 indicates that there were three instances of multiple use among this group. These three also were likely to involve GIS plus CVIS. What is not apparent in these results is whether the individual schools in districts that use more than one system have access to more than one system, or whether the different high schools each have access to just one system.

Table 4 below line 1 deals with those not now using the system named at the top of the column and permits comparisons among the five systems in relation to previous experience with or knowledge about them. Line 3 represents those who used one system in the past, but shifted to another system which is presently being used. The striking result is that no one who used GIS in the past dropped it in favor of another system. But 16 (94%) of the 17 responses in line 3 indicate a shift from CVIS to another system--probably GIS.

Line 4 represents present users of one system who considered some other system but did not adopt it. Of this group of 33, 6 percent considered

TABLE 4

Use of and Familiarity with Five Computer Guidance Systems

Use-Knowledge Status for Each System	System										Responses per Category (Tt1.=1660,5x332)
	CVIS		GIS		SIGI		CIS		DISCOVER		
	N	%	N	%	N	%	N	%	N	%	
PRESENT USERS (Lines 1, 3, 4, 5)											
1. Now Using This System	26	14.0	156	83.9	3	1.6	1	0.5	0	--	186
EXPERIENCE OF THOSE NOT NOW USING THE GIVEN SYSTEM:											
2. Total not now using this system	306	--	176	--	329	--	331	--	332	--	1474
Now Using Another System and:											
3. Used this system in the past	16	94.1	0	--	1	5.9	0	--	0	--	17
4. Considered this for use but did not adopt	14	42.4	2	6.1	5	15.1	6	18.2	6	18.2	33
5. Unfamiliar with this system (inc. no resp.)	106	18.4	4	0.7	153	26.7	155	27.0	156	27.2	574
PAST USERS (Lines 6, 7, 8)											
Previously Used Some System, Now Using None, and:											
6. Used this system in the past	9	27.3	23	69.7	1	3.0	0	--	0	--	33
7. Used another system in the past; considered this but did not adopt	3	30.3	4	40.0	0	--	1	10.0	2	20.0	10
8. Used another in the past; unfamiliar with this	18	16.8	3	2.8	29	27.1	29	27.1	28	26.2	107
NONUSERS (Lines 9, 10)											
Never Used Any System and:											
9. Considered this but did not adopt	25	25.5	53	54.1	7	7.2	11	11.2	2	2.0	98
10. Unfamiliar with this	115	19.1	87	14.5	133	22.1	129	21.4	138	22.9	602
11. Total Unfamiliar with This System (Lines 5, 8, 10)	239	18.6	94	7.3	315	24.6	313	24.4	322	25.1	1283

but did not adopt GIS, while 42 percent considered but did not adopt CVIS. From these data one cannot tell what was the basis for the present choice.

Almost everyone presently using a system was familiar with GIS. Line 5 shows that less than 1 percent were unfamiliar with GIS. For the other four systems, however, the extent of unfamiliarity was roughly equal (CVIS, 18%; and SIGI, CIS, and DISCOVER, 27% each). Line 11 (lines 5 + 8 + 10) shows the total unfamiliar with a given system regardless of experience; these results also support the belief that GIS is the best known of the five computerized guidance information systems.

Turning next to an examination of past users now using no system (lines 6, 7, and 8), those who considered one system but chose another in the past (line 7) obviously were familiar with at least two systems, while those in line 6 (except for the three instances of multiple use already noted) may have been familiar only with the one system with which they had experience. Since both these groups are small, these results are not highly reliable; however, the fact that 70 percent of the past users of a given system (line 6) used GIS is in accord with the results discussed above--namely, another indication of the popularity of GIS. These data do not permit any understanding of why a system was dropped, but responses to other questions suggest that the reasons involved costs of leasing a system or costs associated with having enough terminals to assure easy access.

Among the group who had never had experience with any system (lines 9 and 10), there were 98 instances where a system had been considered for use (line 9). Of these, more than twice as many had considered using GIS as CVIS (54% vs. 26%). This group gave little consideration to using the other three systems.

A further analysis of the responses indicated that those who are using or have used some system are more likely to be familiar with other well-known systems than are those without any experience. These findings suggest that statewide implementation of any new or expanded system might best begin in the more experienced districts. With this in mind, we examined specific system experience and interest in a statewide program.

Table 5 summarizes the respondents' interest or non-interest in statewide consortial activities in relation to use of specific systems. As we saw above, there were far more users (both present and past) of GIS than of any other system, and the only other system with a non-negligible amount of use is CVIS. Of the present users of GIS, 55 percent were interested in a consortium, while for the present users of CVIS, the interested proportion was 69 percent. For the two comparable groups of past users, about two-thirds were interested in a consortium.

TABLE 5

Five Specific Guidance Systems and User Experience or Familiarity, in Relation to Interest in a Consortium

Interest in a Consortium	Computer Guidance Systems					
	CVIS	GIS	SIGI	DISCOVER	CIS	Total, Five Systems
	Present Users Who Use Each Specific System					
Yes	18 (69.2%)	86 (55.1%)	1 (33.3%)	--	--	105 (56.4%)
No	8 (30.8)	70 (44.9)	2 (66.7)	--	1 (100.0)	81 (43.6)
Total	26	156	3	--	1	186
	Past Users Who Used Each Specific System					
Yes	6 (66.7)	15 (65.2)	--	--	--	21 (63.6)
No	3 (33.3)	8 (34.8)	1 (100.0)	--	--	12 (36.4)
Total	9	23	1	--	--	33
	Non-Users Who Considered Using Each Specific System					
Yes	13 (52.0)	31 (58.5)	5 (71.4)	2 (100.0)	4 (36.4)	55 (56.1)
No	12 (48.0)	22 (41.5)	2 (28.6)	--	7 (63.6)	43 (43.9)
Total	25	53	7	2	11	98

Although GIS and CVIS users show considerable interest in a consortium, CVIS users are somewhat more interested than are GIS users. One interpretation might be that GIS users are more satisfied with their system than are CVIS users and thus feel less need for any statewide activity or support. On the other hand, since CVIS operates through user groups, districts that are using CVIS may be more accustomed to the concept of a consortium--that is, may find the idea more understandable--and thus be more receptive to it.

Table 5 also presents the interest of those respondents who have had no experience with any system but who have considered using one. Irrespective of a particular system, 56 percent of the respondents who considered using a computer guidance system but never have done so were interested in a statewide system. For particular systems, districts which had considered using GIS showed slightly more interest than was true for CVIS (58% vs. 52%). Of the seven respondents who had considered SIGI, 71 percent were interested in a consortium, as compared with 36 percent of the 11 who had considered CIS.

In general, this analysis suggests that interest in a statewide consortium is relatively independent of the particular system used or considered for use. Undoubtedly, many different motivations underlie each expressed desire to participate in statewide activities, including a hope of finding the means to finance the adoption of a system, to learn more about the various alternatives in order to have a better basis for choice, a desire to be part of an innovation, and so on. These factors might merit more detailed exploration in the future.

Use of computerized systems in the schools. Of the 162 current users, 27 percent reported that computer guidance services were available to students in grades 9-12; 22 percent said that grades 10-12 had access; and 22 percent indicated that the system was limited to students in grades 11 and 12. An additional 17 percent of the respondents said that the system was used across the grade levels, particularly grades 7-12 (14%), but including grades 4 and 5 in a few instances. Several respondents told us they were not certain which grades had access, and others simply reported that use was limited to certain nonspecified grades (usually 11th or 12th grade).

The total number of students served per year by current users (excluding 20 who did not respond and 24 who did not know) was 115,500. Approximately two-fifths (38%) of the present users said the computer system served between 100 and 500 students during a school year. An additional 13 percent said they served between 500 and 1000 students, and 11 percent reported reaching more than 1000 students a year. Fifteen districts (9%) said the computer was used with fewer than 100 students.

Only 4 (2%) of the 162 present users reported that their schools had access to the computer guidance system on fewer than five weekdays. All others said that the system was available to staff and students "all the time", five or more days a week. Not only are these systems accessible each day, but they tend to be accessible most hours of the day. That is, almost two-thirds (64%) of the current users said that they could get on-line between 7 and 24 hours a day, and an additional 24 percent could do so for between 3 and 7 hours daily. Only 9 respondents (6%) said they had access to the system fewer than three hours a day.

Use, purchase, and rental of equipment. Approximately three-quarters of the 162 present users indicated that each school in the district that had access to the system had a terminal of its own. A few of the multi-school districts reported that some of their schools had two or more terminals, although the average was less than two per school. Of the remainder, 19 percent indicated that from two to five terminals were available in the school. A few respondents (2%) explained that schools shared terminals which were centrally located. Such shared equipment is not satisfactory from the respondents' point of view; and this may be one of the factors underlying the decision to drop computer-assisted guidance.

One question asked the respondents whether they owned the computer hardware and software or rented them from another agency. Only 4 percent of the present users said the district purchased a computer in order to use a guidance program; 72 percent did not, and 24 percent did not respond to the item. With respect to terminals, the picture was slightly different; 28 percent did purchase terminals in order to use a system.

In terms of software, that is, the specific computer guidance program, 12 percent of the current users said they leased the system directly from the owner/developer, and 80 percent indicated they had arrangements to lease it from a BOCES or another district. The fact that such large

numbers of districts obtain services from BOCES units support our contention that BOCES, because of long-standing investments, are an important consideration in any statewide implementation of a computer guidance system.

Use of computers for non-guidance functions. Approximately 94 percent of the 332 respondents report that they make use of computers for at least one non-guidance function. Computers are most widely used for payroll--78 percent report that payroll is automated; this is followed by pupil attendance (66%), programming class schedules (61%), accounting (60%), and collecting/tabulating enrollment statistics (53%). Approximately 46 percent of the respondents said computers were used for instructional purposes, 16 percent reported automated inventory systems, and 22 percent indicate a variety of other uses, including grading and test scoring.

In general, a larger proportion of respondents who expressed interest in the proposed consortium have used computers for non-guidance purposes than have those who were not interested in participating in a consortium. And those districts that use or have used computer-based guidance systems are more likely to use computers for non-guidance functions than those with no experience with computerized guidance. Again, in terms of introducing a statewide system to schools and districts with no prior exposure to computer-based counseling, receptivity might be better among those who have used computers in other ways.

Usefulness of computer-assisted guidance. Table 6, page 24, summarizes opinions about the usefulness of computer-based systems in meeting selected guidance and counseling objectives. Respondents were asked to rate the usefulness of automated systems in providing college information and career information, teaching decision-making skills, clarifying students' values, reaching more students, and improving the use of staff time.

Comparing the various objectives and disregarding experience, respondents perceived computerized guidance systems as most useful for obtaining college information, and least useful for value clarification. Large proportions of respondents felt that such systems were also "very" or "somewhat" useful in providing information about careers. These ratings tend to be in accord with the authors' experience: namely, in

TABLE 6

Views of Usefulness of Computer Guidance Systems to Accomplish Specified Objectives, in Relation to User Experience

(Figures in Percentages)

Degree of Usefulness	Guidance Objectives					
	College Information	Career Information	Decision-Making	Clarify Values	Serve Students	Use of Staff
Present Users (N = 162)						
Very	88.9	61.7	48.8	11.1	47.5	48.8
Somewhat	9.9	32.1	37.6	27.8	35.8	33.9
Not very	--	2.5	9.3	40.7	9.3	4.3
Other[a]	1.2	3.7	4.3	20.4	7.4	13.0
Past Users (N = 30)						
Very	50.0	50.0	36.7	10.0	50.0	43.4
Somewhat	50.0	40.0	43.3	20.0	30.0	23.3
Not very	--	6.7	10.0	46.7	16.7	23.3
Other[a]	--	3.3	10.0	23.3	3.3	10.0
No Experience (N = 140)						
Very	63.6	54.3	37.9	12.9	45.7	42.1
Somewhat	22.1	30.0	35.0	31.4	26.4	25.0
Not very	3.6	2.9	9.2	24.3	13.6	13.6
Other[a]	10.7	12.8	17.9	31.4	14.3	19.3
TOTAL RESPONDENTS (N = 332)						
Very	74.7	57.5	43.1	11.8	47.0	45.5
Somewhat	18.7	31.9	37.0	28.6	31.3	29.2
Not very	1.5	3.0	9.3	34.3	11.8	9.9
Other[a]	5.1	7.6	10.6	25.3	9.9	15.4

[a]Other includes no opinion and no response.

most systems we have investigated, the college files were more complete, accurate, and appropriate to secondary level students than was the occupational (career) file or, for that matter, than were the financial aid files. Moreover, the only systems that purport to deal directly with values--DISCOVER and SIGI--are the least used and least familiar systems for our group of respondents.

Approximately half of the respondents felt computer systems were "very" useful in reaching more students and in enabling staff to use their time more effectively; an additional one-quarter to one-third felt they were "somewhat" useful for these functions. Current users tend to rate computers very useful more often and for more functions than respondents with either past or no experience. Interestingly, for nearly every objective specified, a larger proportion of districts with no experience perceived computers as very useful than was true of those that had used such systems in the past. One possible explanation is that the past user group may no longer be involved in computer-assisted guidance because of negative experiences. We will return to this point below.

Irrespective of experience, there were some differences between respondents interested in a consortium and those not interested. For each objective or function, more--a larger percentage--of interested respondents felt the computer was worthwhile than was true of the non-interested respondents. It is quite apparent that disinterest in the idea of a consortium to plan a statewide system is related to a belief that such systems are of dubious usefulness.

Most valuable aspects of computerized guidance. When asked what are the most valuable aspects of computer-based guidance programs, present users gave a total of 274 or 1.7 responses per respondent. Present users interested in participating in a consortium averaged 1.8 responses as compared with an average of 1.5 responses generated by present users who expressed no interest in a consortium. In contrast, past users were less fluent; they gave 43 responses--although those interested in participating in the consortium gave more responses (1.6) than those not interested (1.2).

Responses were classified into several categories, as shown in Table 7. For present users, the college file accounted for the largest percentage (18%) of most valuable ratings, followed by the accessibility and ease of operation of such systems (16%). There were some differences between users interested

TABLE 7

Views on Most Valuable Aspects of Computer Guidance Systems, in Relation to User Experience and Interest in a Consortium

(Figures in Percentages)

Most Valuable Aspects:	Present Users			Past Users		
	Interested in Consortium (N = 89)	Not Interested in Consortium (N = 73)	Total (N = 162)	Interested in Consortium (N = 18)	Not Interested in Consortium (N = 12)	Total (N = 30)
Accessibility	17.4	14.1	16.1	14.3	13.3	14.0
Use of Staff	6.2	3.5	5.1	3.6	--	2.3
Motivation	14.9	7.1	11.7	14.3	20.0	16.3
Output	5.6	5.3	5.5	3.6	--	2.3
General Information	8.7	8.0	8.4	7.1	6.7	7.0
College Information	14.3	23.0	17.9	14.3	6.7	11.6
Career Information	9.3	13.3	10.9	10.7	13.3	11.6
Timely Information	10.6	6.2	8.7	10.7	13.3	11.6
Other, Guidance[a]	8.7	13.3	10.6	14.3	20.0	16.3
Other, Non-guidance[b]	4.3	6.2	5.1	7.1	6.7	7.0
TOTAL RESPONSES	161 (100.0%)	113 (100.0%)	274 (100.0%)	38 (100.0%)	15 (100.0%)	43 (100.0%)

[a]Includes miscellaneous comments about the comprehensiveness, specific details, and/or decision-making capability of computerized systems.

[b]Includes comments about computers, not related to guidance or counseling functions (e.g., computers help students with mathematics.

and those not interested in the consortium, particularly with respect to the frequency with which effective use of staff, motivation, and goodness of both occupational and college files were mentioned. In general, present users interested in the consortium believe, to a greater extent than those not interested, that computer-based guidance systems are most valuable in terms of system accessibility, timeliness (i.e., up-to-date information), and motivational qualities. It is especially significant that these are just the aspects of computerized guidance that transcend the details of any particular system. Past users felt that computer systems were valuable for their motivational features and ease of operation (accessibility).

Least valuable aspects. Table 8, page 28, summarizes the comments of experienced respondents (present and past users) concerning the least valuable aspects of computerized guidance information retrieval systems. Overall, there were far fewer negative than positive comments (317 positive vs. 199 negative comments). Users interested in a consortium gave more responses than those not interested. Present interested users averaged 0.9 responses, while past users, interested and non-interested, averaged 1.4 and 1.1, respectively. Past users who would like to be involved in a consortium were most fluent of these four groups in describing the least valuable aspects of computer-based guidance.

Present interested users' most frequent comments were about the incompleteness and inaccuracy of systems and about deficiencies of college and finanacial aid files. They were also concerned with the amount of down time resulting from equipment malfunctions. Results were similar for present users not interested in a consortium; they too were likely to be concerned with the poor quality of the college and financial aid files, but were more concerned with the unreliability of the equipment and amount of down time, and the difficulty in scheduling use. Past users, particularly those interested in a consortium, reported even more problems with scheduling (they tended to share terminals) and difficulty operating the system (accessibility). Past users with no interest in a statewide system also had had scheduling problems, but were somewhat more concerned with the incompleteness and inaccuracy of the information, especially in the financial aid files. (See Table 8.)

Respondents' recommendations and suggestions. The 332 respondents offered useful, non-ambiguous suggestions for the future. Most of their

TABLE 8

Views on Least Valuable Aspects of Computer Guidance Systems, in Relation to User Experience and Interest in a Consortium

(Figures in Percentages)

Least Valuable Aspects:	Present Users			Past Users		
	Interested in Consortium (N = 89)	Not Interested in Consortium (N = 73)	Total (N = 162)	Interested in Consortium (N = 18)	Not Interested in Consortium (N = 12)	Total (N = 30)
Completeness/accuracy	16.8	3.0	11.2	8.0	15.4	10.5
Scheduling	9.5	9.1	9.3	24.0	30.7	26.3
Career Information	9.5	6.1	8.1	--	--	--
Financial Aid Information	10.5	13.6	11.8	12.0	15.4	13.2
College/training Information	11.6	21.2	15.5	8.0	--	5.3
Equipment Reliability	11.6	9.1	10.6	12.0	7.7	10.5
Decision-making[a]	5.2	--	3.1	--	--	--
Accessibility	9.5	3.0	6.8	16.0	--	10.5
Cost	4.2	--	2.5	8.0	7.7	7.9
Other, Guidance[b]	11.6	24.3	16.8	12.0	15.4	13.2
Other, Non-guidance[c]	--	--	--	--	--	--
Slow Preparation Time	--	10.6	4.3	--	7.7	2.6
TOTAL RESPONSES	95 (100.0%)	66 (100.0%)	161 (100.0%)	25 (100.0%)	13 (100.0%)	38 (100.0%)

[a]Includes deficiencies in clarifying values as well. All respondents making these comments qualified their response by adding "if used as a rule book..."

[b]Includes noise, staff cooperation, and so on. See footnote a, Table 7.

[c]See footnote b, Table 7.

comments were for improved files, particularly for a better financial aid and scholarship one (23% of the comments). Additional comments (12%) called for a better occupational file (including simpler format, more specific job titles that relate to the D.O.T., and a more adequate indication of training requirements), or for localized occupational files (6%). Several other comments (5%) related to developing new files--such as a file of vocational or trade schools. A relatively large proportion of recommendations (23%) were for clearer instructions for using these systems, easier ways for students who had used a system once to access it again, and on-line ways to maintain information from a student's prior interaction(s); these suggestions also included several comments about the need to provide training for staff. There were a large number of reactions (18%) about the costs associated with buying terminals and renting systems. Many users indicated that costs (for unshared terminals, telephones, etc.) were a significant factor in their either not having a computer guidance system or in not having a completely satisfactory one. A few responses (3%) related to designing systems that would go further in teaching users about values and about decision-making. Several people took the opportunity to say they had no problems with the system they were using (or had used); others indicated they are very much in favor of a statewide system, want more information about it, and want to be certain that guidance counselors are involved in its design--to help insure that they would not resist its use at a later time.

Computer Guidance Systems in Postsecondary Educational Institutions

As indicated earlier, in January 1979 IRDOE sent a modified version of the "Computer-Based Guidance System Survey"[1] to 45 public two-year colleges (9 CUNY and 36 SUNY institutions) and 12 private two-year colleges in New York State, as well as to the 8 Educational Opportunity Centers. Although the questionnaire was addressed to deans/directors of student services, we asked that it be completed by the person most familiar with computerized guidance activities and computer use in general administrative and management functions.

[1] See Appendix B, "Computer-Based Guidance System Survey, 3/79." So as not to duplicate the activities in which Metrolab was engaged, we omitted all questions about interest in a statewide system.

The rate of response was poor, but more disappointing was the way in which the four-page checklist was completed. As an illustration, only in a few instances was any one question answered by all respondents--the "no response" to items ranged from a high of 27 (Question 11) to a low of 4 (Question 5). Reflecting the small Ns, this section of the report will present selected data, primarily in narrative form.

A total of 31 of the 65 questionnaires were returned, for an overall response rate of 48 percent. One Educational Opportunity Center (EOC) responded, as did 4 CUNY colleges (44%), 20 SUNY colleges (56%), and 6 private two-year colleges (50%). The low response rate for the CUNY colleges is a not uncommon occurrence in the experience of the authors.

The reported enrollment of the institutions the respondents represent averaged 3102 students; the public institutions (CUNY, SUNY, and EOC) had a mean enrollment of 3544 students, while among the private colleges the mean enrollment was 1257. Interestingly, the private institutions report a greater proportion of full-time and female students than do the public ones, although for both groups approximately 6 out of 10 students were career program majors.

Eight of the 31 institutions did not indicate how familiar they were with automated guidance systems, nor did they describe their own level of experience.[1] Of the 23 responding, eight were experienced users. Six were present users of a computer-based system; one was using SIGI, and the others used GIS. Two colleges had used GIS in the past; one of these had also used CVIS. Four of the eight experienced users obtained computer services from other agencies--BOCES (2), Time Share Corporation (1), and from a neighboring city school district (1).

Five of the six present users had student enrollemnts of 4000 or more. In contrast, 14 of the 15 colleges with no experience had student enrollments of less than 3000. As was the tendency in the secondary schools, smaller institutions seem to have less need for automated counseling services, or are less experimental, than larger ones.

Of the eight indicating that they were experienced users, four supported the system without special funds and four indicated they had received

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[1]Two of these eight participated in IRDOE's community college computer-assisted guidance demonstration project for two consecutive years.

support from outside agencies. Two of the latter group also participated in IRDOE's community college demonstration project, and two had obtained VEA grants of their own. Three colleges said they were in the process of writing a proposal to obtain VEA funds,[1] and one other noted that without special funds the cost was prohibitive. Several respondents said or strongly intimated that if funding was not an issue they most certainly would adopt a computerized guidance resource.

When asked whether they had considered and/or investigated automated guidance systems, most respondents said yes; only five institutions expressed no interest at all in these systems. Most report investigating SIGI (10) or having considered it (12). Several had looked into GIS (6) or considered it (4), and five said they had considered CVIS in the past. (Two institutions noted that they had considered two separate systems). Five respondents said they intend to investigate computer guidance systems in the future.

Although the number responding is small, here as well as in the secondary schools, more institutions use GIS than any other system. At the postsecondary level, however, a relatively larger proportion appear interested in SIGI--the one system developed primarily for use at the college level, and the one marketed most extensively in the State before January 1979, when Metrolab began its efforts to bring Oregon's CIS to the attention of the potential users in New York.

Table 9 on the following page summarizes the responses of 27 postsecondary institutions to questions concerning the usefulness of computerized systems for various counseling and guidance functions. (Four colleges did not respond to this item and are not included in the summary table.) Relatively large proportions of respondents rated computer systems as very useful for providing career information (63%), deploying staff effectively (56%), reaching more students (48%), for transfer information (48%), and as an aid in decision-making (44%). Most other respondents rated the computer somewhat useful for these functions. Only value clarification received relatively low proportions of useful ratings. As can be seen in Table 9, from 7 to 22 percent of the respondents had not yet formed an opinion about one or more of these objectives.

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[1] All three are proposing to use GIS in the future.

TABLE 9

Postsecondary Respondents' Views on Usefulness of Computer Guidance Systems to Accomplish Specific Objectives

(Figures in Percentages)

Total Respondents (N = 27)

Guidance Objective:	Very Useful	Somewhat Useful	Not Very Useful	No Opinion
Transfer information	48.2	37.0	3.7	11.1
Career information	63.0	29.6	--	7.4
Decision-making	44.5	37.0	7.4	11.1
Values clarification	25.9	40.8	11.1	22.2
Reach more students	48.2	37.0	3.7	11.1
Use staff effectively	55.6	29.6	3.7	11.1

As in the secondary schools, use of computers for non-guidance functions is widespread in the institutions surveyed. Approximately four-fifths (79%) of them use computers for compiling enrollment statistics, and 66 percent report using computers for instructional purposes and for payroll; these are followed by use for general accounting (55%), class scheduling (52%), attendance (41%), and for inventory and supplies (41%). Approximately 14 percent used computers for other miscellaneous purposes, such as in their library or for producing grade reports.

The best features of computerized guidance, according to the seven institutions that responded to the question, include their speed and efficiency, ease of use and access, hard copy (i.e., printed output), novelty (in terms of student interest and motivation), and the fact that they expose users to computers. Again, these are common aspects of all automated systems; they go beyond the details of any particular one. Also mentioned as good features were the occupation file and the comprehensiveness and currency of information; these are features of specific systems.

Five respondents discussed the worst aspects. They viewed automated systems as not useful in value clarification and decision-making, felt they provided limited occupational choices, included poor descriptions of

the majors available in four-year colleges, were infrequently updated, were oriented to secondary school level students, and offered users limited and rigid forms of access and information search. These features are also system-specific.

Six respondents made the following recommendations: develop a job bank, include more occupations and more regional ones, relate college majors to jobs and skills to occupations, improve the accuracy and recency of information, and increase the flexibility of access and use.

As indicated, the small number of respondents and their general lack of concern with detail and precision in completing the instrument makes the findings of limited value. With these limitations and generalizing from these data, 35 percent of the institutions surveyed were currently using or had used a computer-assisted guidance system, probably GIS; several more are interested in and are exploring sources by which to fund a system, probably SIGI; and most indicated familiarity with the best known systems. The postsecondary institutions tend to be concerned with the capacity of systems to provide good occupational information to students and with relating this information to college majors and jobs. And most feel that the systems are very or somewhat useful in fulfilling selected guidance functions.

EDUCATIONAL ACTIVITIES IN CORRECTIONAL INSTITUTIONS

In April 1979, at the suggestion of the State Education Department, IRDOE devised a questionnaire that would provide the Bureau of Grants Administration with some data describing correctional facilities, as a base for better informed decisions concerning the use of VEA funds. In past years, such monies had been granted to various community colleges and other agencies, including IRDOE, to improve occupational counseling and training for the incarcerated population.

Using lists of names and addresses supplied by the New York State Department of Correctional Services, Division of Education, IRDOE sent the questionnaire[1] to 80 education directors and/or educational supervisors

[1]For a copy of the instrument, "Educational Programs in Correctional Facilities in New York State," see Appendix C.

at 36 correctional facilities. In total, we received responses from 18 individuals (22% of the 80), representing 14 different institutions (39% of the 36). Unless otherwise noted, in all instances where replies were received from more than one person at a facility, we selected the responses of the highest ranking educator for the analyses. The rate of return was disproportionate for the various types of instituions--minimum, medium, and maximum security. Minimum security facilities were severely underrepresented (7% of the returns as compared with 31% of the total sample) and medium security institutions were overrepresented (65% of the return as contrasted with 42% of the sample).

Description of Respondents

Twelve of the 14 responding institutions had male inmate populations and two were facilities for females; all report they are facilities for sentenced offenders and house no detainees. The size of the inmate population varied greatly. Two sites house fewer than 100 inmates and four house more than 1000; the remainder are equally divided between 100-499 and 500-1000. For all respondents, average size of the inmate population during a typical month is 763. Seven percent of the sites report the average length of sentence as less than six months; 14 percent report sentences that average between six months and one year; and for another 14 percent, the length of sentence is one to two years. Half the respondents said that an average sentence exceeds two years. (Two facilities did not answer the question). For the 13 sites answering the question, we estimated the overall ethnic distribution of the inmate population (all sites combined) to average 57 percent black, 21 percent Spanish surnamed, 21 percent white, and 1 percent other ethnic groups, including American Indian, Orientals, Hungarians, Russians, and Poles.

Educational Facilities and Classroom Space

Thirteen sites responding to the question said that the institution has separate space allocated exclusively to educational programs. This includes classroom and shops. Sites averaged 10.5 classrooms, with the range from less than 5 to more than 20. The mean number of shops devoted to vocational training (as contrasted with employment and institutional programs) was 7.2; the largest number of rooms set aside for vocational

education was 15. Thirteen sites listed shop courses. In order of frequency, carpentry was offered by 10 institutions, followed by electrical (9), automotive training (8); drafting, crafts, and office skills (7 each); and welding (6). Five sites offered programs in barbering, printing, and building maintenance; radio and TV repair was offered in 4 sites, and sewing, masonry, plumbing, and air conditioning and refrigeration were each available in 3 of the facilities. In addition, one or two respondents mentioned other programs, including landscape gardening, upholstery, floor covering, and food service.

Ten of the 13 sites rated the adequacy of the space allotted to educational programs as very or somewhat adequate, and all felt that the equipment and facilities were somewhat or very adequate. Only one person rated the number and types of shops as "not very adequate." It is obvious that the respondents regarded these physical facilities as satisfactory, merely commenting that "one classroom more" was needed (3 sites), that existing rooms were "too small" (6), or that the equipment was, or soon would be, outdated (3).

Twelve of the 13 sites reported having a library for the inmates, but one does not. In half the sites, the library was accessible between 7 and 10 hours a day. Only one institution said that the library was open on fewer than five days a week, and for about 3 1/2 hours on the designated days.

Instructional Resources

For acadmic subject areas, the facilities employed a total of 129 full-time academic staff (an average of 9.9 per site); and 67 part-time instructors, an average of 5.6 per institution. There were generally fewer full-time staff for vocational subjects (92, or 8.4 per institution). Nine of the 13 sites report employing no part-time vocational teachers; the other four facilities employ a total of 10, or 2.5 per institution. Based on our estimates calculated from these figures, there is an average of one full-time teacher of academic subjects for every 77 inmates, in contrast with an average of one full-time teacher of vocational subjects for every 112 inmates.

We also asked the correctional facilities to indicate the number of different instructors from outside the institution who teach special courses or programs at the facility. A total of 84 were indicated by 10 sites. One other site indicated that all instructors were from outside.

Twelve sites responded to a question asking whether the institution had received funding for special programs in the last three years. Four reported that they had not, four received funds from a single source, one received money from two sources, and one obtained funds from three sources. The special funds included Federal monies under ESEA Title I, Title IV, and CETA, as well as State money under the Vocational Education Act.

Inmate Participation in Education Activities

Using a typical month as a base, 8 of 12 responding institutions report that from 50 to more than 80 percent of the inmate population participate in educational programs. The other four facilities report that between 18 and 30 percent participate in some type of educational activity. In a typical month, an average of 61 percent of the combined inmate population was involved in an educational pursuit.

These activities varied considerably. At one site, for example, all inmates took part in a 100-hour long life skills and survival education course. At several others, they were involved in training leading to vocational certificates. The question about enrollment in specific grade level or credit courses was ambiguous, but from the responses of 12 institutions we estimate that approximately three out of every 10 inmates (29%) were involved in elementary level education. An additional 26 percent were doing high school level work, and 11 percent were taking college courses. Approximately 15 percent of the inmates in 12 institutions had completed the high school diploma or equivalency requirements, with less than 1 percent completing a two-year college degree program.

During the past three years, at only two institutions were elementary level courses conducted by outside agencies--"a community group" and the Literacy Volunteers of America. Similarly, secondary level programs also tend to be run by the institutions' staff; only two facilities had secondary level courses or programs given by outside agencies, one of which was a local high school. In contrast, however, all 13 sites had at

least one postsecondary-adult level program offered by an organization external to the institution. A total of 20 different colleges (10 two-year and 10 four-year) offered credit and degree courses in these correctional institutions. Five sites worked with one college each, five sites had a formal relationship with two colleges, and three correctional facilities worked with three postsecondary institutions. In addition, at four institutions, inmates were involved with other types of special educational programs, including the Regents External Degree Program and the State Education Department's ICAP. Only five (of 18) people commented that course offering might be expanded.

Eight of the 13 respondents said that the programs offered by outside agencies involved no expenditure on the part of the correctional facility, while 5 reported that the site did incur some actual costs to cover salaries for instructors, transportation, books and supplies, and for additional security. Ten sites (77%) felt that programs conducted by outside agencies were very worthwhile, and two of the remaining three respondents rated these programs as somewhat worthwhile. These types of programs were criticized as not being relevant, requiring additional work and responsibility for the facility, and disruptive because they are not stable (i.e., are frequently cancelled on short notice). Four of eight respondents said that some aspects of such special programs do continue beyond the demonstration period. The activities that were listed include continued use of CETA clerical workers, and classes taught by volunteers in creative writing, black history, and Spanish culture. A food service program has become part of one site's regular vocational offerings.

Half the facilities reported what happens to inmates on release or transfer. Five sites said they estimate that less than one out of five inmates continue their education, and another institution reported that from 20 to 50 percent of the released or transferred population continues. The seventh respondent put the estimate as high as 75 percent.

These results are interesting for several reasons. First, a very large proportion of inmates in the institutions that responded to the survey are involved in educational activities. Second, a broad range of educational programs is offered: academic courses from the elementary through the college level, and vocational programs ranging from developing job skills to leisure activities (crafts). Most of these appear to be part of the institutions' regular programming, taught by full- or part-time staff whose primary affiliation is with the facility. Also of interest is the number of inmates who pursue degree programs, a possible indication that they are seriously concerned with education; this hypothesis is supported by the finding that a substantial proportion are believed to continue their studies after release or upon transfer to other facilities.

On the other hand, relatively few correctional institutions obtained funds of their own to conduct special programs, although all were involved in cooperative arrangements whereby external agencies, including two-year and four-year public and private colleges, provided staff, materials, or other resources for the conduct of either regular or special types of educational services.

Of special interest is the fact that the respondents were generally satisfied and accepting of what was available. The general feeling of complacency on the part of staff in correctional facilities has been previously noted by the authors,[1] who found this characteristic of the extremely complex and compartmentalized structure of correctional institutions. We hypothesized that prisons are similar to other secured environments--hospitals and the armed services--in this respect, and that in these types of environments, education, which is peripheral to the organization's primary function, is often also peripheral to the needs of the learner as these are perceived and discussed in the literature and by outside agencies.

[1] Heller and Gross, Secured Environments..., op. cit.

SUMMARY

During the 1978-79 school year, IRDOE conducted surveys of school districts in New York State, excluding the City of New York districts; of 57 public and private two-year colleges and 8 Educational Opportunity Centers; and of 36 correctional institutions in New York State. To some extent, the purposes of these surveys were similar: to provide policy makers with more information so that VEA funds could be used to maximal advantage. The secondary and postsecondary school level surveys focused on past use of and interest in computer-based guidance systems; the concern of the correctional institution inquiry was on the needs of the incarcerated population for educational services and how these needs were being met. For the three surveys, the rate of response was 39 percent for correctional facilities, 45 percent for the school districts, and 47 percent for postsecondary institutions.

Experiences with computerized college and career information guidance systems in high schools and in two-year colleges in New York State are remarkably similar. Use of one or another, and in several instances more than one system, is widespread. Half the respondents, a total of 165 school districts (including 18 BOCES which responded), were using an automated system during 1978-79, and most of these had been involved for more than a year--some for as many as five or more years. In addition, 30 other districts had had experience with such computerized systems in prior years although they were not presently using any system, generally for reasons associated with costs. Approximately one-quarter of the post-secondary respondents were also currently using a computer-based guidance system.

GIS, the Guidance Information System, was the one most frequently used in both high schools and colleges. There were several school districts and a few colleges which had experimented with more than one system; usually, the one preferred was GIS. Experienced users (past and present) have certain characteristics in common, irrespective of educational level. More larger districts or sites enrolling larger numbers of students, as compared with smaller ones, tend to have had more experience with a computer system--suggesting that it is a valuable supplement to other counseling resources. Moreover, and probably related to size, districts or sites that use computers

for non-guidance functions (e.g., payroll, attendance) are more likely to have used computers in guidance than are sites that make less use of computers. Furthermore, school districts and postsecondary institutions that are experienced with one system are usually knowledgeable about other, well-known ones.

Also in common, secondary school districts and postsecondary institutions rate computer guidance systems as least useful for career decision-making and value clarification. High schools rated them as most useful for obtaining college information, while larger proportions of the colleges rated computer systems as most useful for obtaining career information. These results are in accord with expectations since, with the exception of SIGI, the better known and most widely used systems do not directly concern themselves with values or decisions; moreover, most high school students are more concerned with college selection than they are with occupational information, although the reverse is true for college students who are closer to entering the labor market.

Of interest is the number of districts and colleges that obtain computer guidance services from other agencies--from BOCES units in particular, but also from neighboring sites. The data suggest, in addition, that an increasing number of districts and sites are intending to request funds to purchase computer guidance services. Together, these outcomes reinforce the belief that a concerted, coordinated effort to design and implement a computer-based guidance system for New York State would be well received; some of our other results tend to confirm this belief.

Indeed, as part of the survey of secondary schools, we asked the guidance specialists about interest in a statewide system. Half the respondents indicated that they would be interested in participating on one or more committees that we proposed to investigate topics associated with this endeavor. Most, of course, were interested in working on content issues--that is, what are the needed types of information; and fewest were interested in working out the hardware and communications configurations. Interest in a statewide system is positively related to experience and to size of district (and/or number of students enrolled).

Although participation in a consortium was not one of the issues raised in the survey of postsecondary institutions, they too expressed interest in wider use of these systems, as well as requesting copies of any of our reports describing experiences with demonstration projects. Of great concern to us was the fact that although we requested all recipients of our questionnaires to append reports if they were available, we did not receive any reports or papers about present or past users' experience with automated guidance systems.

In the text of this report we made suggestions or implied directions that implementers of future attempts to install statewide systems might want to consider. For example, based on our interpretation of the findings, we feel that any new system might receive the most welcome response and rigorous trial by experienced users, by large sites, and/or by interested schools. The problem was raised (with no solution proposed) about how to capitalize on BOCES networks and experience without threatening their long-standing investment in this area.

Although the data presented in this report does not bear on the use of computer guidance systems in correctional facilities, we believe it worthwhile to try to tie together findings that we collected previously in selected facilities. In the previous study,[1] we concluded that prisons are more complex organizationally than are colleges; and that colleges are, in turn, more complex organizationally than high schools.[2] We also related speed and extent of adoption and use of an innovation--in this instance, computer-based guidance--to organizational complexity, and concluded that there appears to be an inverse relationship. To the extent that there are intricate sub-systems and groups involved with vocational education in New York State, these may be among the most crucial elements that need to be considered if this State is to be one of the growing number that offers their in-school and adult populations fast, computerized access to a wide variety of training and career information.

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[1] Heller and Gross, Secured Environments..., op. cit.

[2] Gross, Fisher, and Heller, A Modified Approach..., op. cit.

APPENDIX A

Computer-Based Guidance System Survey,
Secondary Schools.....A1

CASE Institute for Research and Development in Occupational Education

City University of New York

COMPUTER-BASED GUIDANCE SYSTEM SURVEY

Computer-based guidance systems are defined, for the purpose of this project, to include those systems where data is stored in a central computer bank and accessed by students and/or staff directly from a terminal or indirectly through requests for information that are processed through the computer. The stored data can be informational or about values/interests/aptitudes, and relates to college or career choice--or any combination. Excluded from this definition is computer-assisted instruction and the use of computers in school management functions.

In the interest of economy and efficiency we have designed this Survey to obtain as much information as possible in a manner that requires the least effort on your part. Thus, the words "SCHOOL DISTRICT" (or District) can refer to BOCES, LEA's, and other educational political subdivisions. We have also attempted to present most questions in checklist form leaving, as a result, little space for your unique experiences or detailed comments. We urge you therefore, to add pages; write in margins; and/or append other documents, reports, or notes we need to know about in order to ascertain the "New York State of the Art of "Computer-Based Guidance." Thank you.

1. Name of SCHOOL DISTRICT (BOCES, etc.): _____

2. Number of senior high schools in DISTRICT: _____

3. Approximate total senior high school enrollment: _____

4. Senior high school grade levels (circle those that apply): 7 8 9 10 11 12

5. For the following specific computerized guidance systems, please indicate how familiar your District is with each:

	District Uses It At Present	District Used It In Past	District Considered Using It	District Not Very Familiar With It
CVIS (Computerized Vocational Information System)	___	___	___	___
GIS (Guidance Information System)	___	___	___	___
SIGI (System for Interactive Guidance and Information)	___	___	___	___
Project DISCOVER	___	___	___	___
QUEST-CIS (Career Information System)	___	___	___	___
Other: _____	___	___	___	___

6. Irrespective of your degree of familiarity with any specific system, please indicate your general opinion about the concept's usefulness for each of the following student outcomes:

	Very Useful	Somewhat Useful	Not Very Useful	Have Not Formed Opinion
Providing information about colleges	___	___	___	___
Providing information about careers	___	___	___	___
Aiding choice or decision-making	___	___	___	___
Clarifying values	___	___	___	___
Reaching more students	___	___	___	___
Using staff time more effectively	___	___	___	___
Other: _____	___	___	___	___

7. If your District has never used a computerized guidance system, has the District ever investigated using such a system?

___Yes, investigated one (or more) system(s); but decided against using it. Please indicate what system(s) was considered, and the basis for the decision: _____

_____

___Yes, currently investigating one (or more) system(s). If so, please indicate what system(s) and what are considered the positive and negative aspects: _____

_____

___No, but we intend to do so.

___No, there has been no (or little) interest in computerized guidance systems.

Please answer Question 8-17 if your District is currently or has ever, to the best of your knowledge, made use of a computerized guidance system(s). (If no use was made of such systems, please go to Question 18.)

8. Was more than one such system tried? ___No ___Yes; please specify: _____

_____

9. During what years was (each of) the system(s) in operation in your district?

_____

Was the operation continuous during those years? ___Yes ___No; please indicate why not:

_____

10. If the District changed from one to another system, what was the basis of the decision to change?

_____

11. Did the District receive special funding (e.g., grants) to implement the system(s) in the schools? ___No ___Yes; if yes, what was the nature and source of the project funds? _____

12. During the time the system(s) is (or was) available in the District, approximately:
    (a) how many different high schools have (had) access? _____
    (b) how many students are (were) served in an academic year? _____
    (c) what grade level students are (were) served? _____
    (d) how many terminals per school are (were) in use? _____
    (e) how many days a week does (did) any particular school have access? _____
    (f) how many hours each day does (did) any particular school have access? _____

13. Did the District:
    Purchase a computer in order to use the system? ___No ___Yes
    Purchase terminals in order to use the system? ___No ___Yes
    Rent/lease the system directly from the owner/developer? ___No ___Yes
    Rent/lease the system from another agency (e.g., a District or BOCES)? ___No ___Yes

14. What are (were) the most valuable aspects of the system(s)?
    (If more than one system was used, please identify each.) _____
    _____

15. What are (were) the least valuable aspects of the system(s)?
    (If more than one system, please identify each.) _____
    _____

16. What recommendations or suggestions do you have for improving such systems, including the one you are using or those you have used? _____
    _____

17. Do you have any reports or information on the impact or effectiveness of computerized systems on the students served? ___No ___Yes (Please append if possible.)

18. Whether or not the District is (or has been) involved with computerized guidance, please indicate whether it makes use of computers for any of the following functions:

Payroll	___Yes	___No	Enrollment statistics	___Yes	___No
Accounting	___Yes	___No	Attendance data	___Yes	___No
Programming class schedules	___Yes	___No	Instruction	___Yes	___No
Inventory/supply	___Yes	___No	Other: _____	___Yes	___No
			_____	___Yes	___No

19. Which, if any, of the following groups would you personally be interested in joining as part of a Statewide Consortium to investigate future computerized guidance activities? If you cannot participate, can you suggest people who might?

____Financial aspects. No, I recommend: _____

_____

____Hardware configurations. No, I recommend: _____

_____

____Network (e.g., phonelines, etc.) No, I recommend: _____

_____

____Evaluation and research. No, I recommend: _____

_____

____Content; alternative systems. No, I recommend: _____

_____

____On-going operation; supervision. No, I recommend: _____

_____

20. Please indicate the name, title, and best mailing address of the person who completed this Survey:

_____

_____

_____

_____

Please use the rest of the space for comments. Return the completed Survey in the envelope provided to: CUNY/IRDOE, 33 West 42nd St., New York, New York 10036, Room 1438.

APPENDIX B

Computer-Based Guidance System Survey, 3/79,
Postsecondary Educational Institutions.....B1

List of Postsecondary Educational Institutions.....B5

CASE Institute for Research and Development in Occupational Education
Graduate School and University Center
City University of New York

COMPUTER-BASED GUIDANCE SYSTEM SURVEY

Computer-based guidance systems are defined, for the purpose of this project, to include those systems where data is stored in a central computer bank and accessed by students and/or staff directly from a terminal or indirectly through requests for information that are processed through the computer. The stored data can be informational or about values/interests/aptitudes, and relates to college or career choice--or any combination. Excluded from this definition is computer-assisted instruction and the use of computers in school management functions.

In the interest of economy and efficiency we have designed this Survey to obtain as much information as possible in a manner that requires the least effort on your part. We have attempted to present most questions in checklist form leaving, as a result, little space for your unique experiences or detailed comments. We urge you therefore, to add pages; write in margins; and/or append other documents, reports, or notes we need to know about in order to ascertain the "New York State of the Art of Computer-Based Guidance." Note that for brevity, the word college refers to equal opportunity centers as well. Thank you.

1. Name of college (or center): _____

2. What is the approximate total enrollment? _____

3. Approximately what percentage of the total enrollment is:

   full-time____% male____% liberal arts (transfer) majors____%

   part-time____% female____% career (terminal) program majors____%

4. For the following specific computerized guidance systems, please indicate how familiar your college (or center) is with each:

	Uses It At Present	Used It In Past	Considered Using It	Not Very Familiar With It
CVIS (Computerized Vocational Information System)	☐	☐	☐	☐
GIS (Guidance Information System)	☐	☐	☐	☐
SIGI (System for Interactive Guidance and Information)	☐	☐	☐	☐
Project DISCOVER	☐	☐	☐	☐
QUEST-CIS (Career Information System)	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐

5. Irrespective of your degree of familiarity with any specific system, please indicate your general opinion about the concept's usefulness for each of the following student outcomes:

	Very Useful	Somewhat Useful	Not Very Useful	Have Not Formed Opinion
Providing college transfer information	☐	☐	☐	☐
Providing career information	☐	☐	☐	☐
Aiding choice or decision-making	☐	☐	☐	☐
Clarifying values	☐	☐	☐	☐
Counseling/advising more students	☐	☐	☐	☐
Using staff time more effectively	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐

6. If your college has never used a computerized guidance system, has it ever investigated using such a system?

☐ Yes, investigated one (or more) system(s); but decided against using it. Please indicate what system(s) was considered, and the basis for the decision: _____

_____

☐ Yes, currently investigating one (or more) system(s). If so, please indicate what system(s) and what are considered the positive and negative aspects: _____

_____

☐ No, but we intend to do so.

☐ No, there has been no (or little) interest in computerized guidance systems.

Please answer Question 7-16 if your college is currently or has ever, to the best of your knowledge, made use of a computerized guidance system(s). (If no use was made of such systems, please go to Question 17 on page 4.)

7. Was more than one such system tried? ☐ No ☐ Yes; please specify: _____

_____

8. During what years was (each of) the system(s) in operation at your college?

_____

Was the operation continuous during those years? ☐ Yes ☐ No; please indicate why not:

_____

9. If the college changed from one to another system, what was the basis of the decision to change?

_____

10. Did the college (or center) receive special funding (e.g., grants) to implement the system(s)? ☐ No ☐ Yes; if yes, what was the nature and source of these funds? _____

_____

During which years was funding available? _____

11. During the time the computer system has been (or was) available, approximately:

How many different students are (were) served in an academic year? _____

What percentage used the system for college transfer information? _____

What percentage used the system for career/occupational information? _____

What percentage used the system for financial aid information? _____

What percentage of the students used the system for values clarification or as an aid in decision-making? _____

What percentage of the students used the system in an interactive manner, sitting at the terminal? _____ What percentage used the system in a batched mode, completing a request for information that was processed by staff? _____

12. From a systems point of view, did the college or center:

Purchase a computer? ☐ No ☐ Yes

Use a computer owned by the college or center? ☐ No ☐ Yes

Lease or rent computer time from another agency? ☐ No ☐ Yes; if yes, please specify which agency (e.g., another college, BOCES): _____

Lease or rent computer time from the system(s) owner/developer? ☐ No ☐ Yes

Purchase terminals? ☐ No ☐ Yes

Lease or rent terminals? ☐ No ☐ Yes; if yes, from whom? _____

13. What are (were) the <u>most</u> valuable aspects of the system(s)? (If more than one system was used, please identify each.) _____

_____

14. What are (were) the <u>least</u> valuable aspects of the system(s)? (If more than one system, please identify each.) _____

_____

15. What recommendations or suggestions do you have for improving such systems, including the one you are using or those you have used? _____

_____

16. Do you have any reports or information on the impact or effectiveness of computerized systems on the students served? ☐ No ☐ Yes (Please append if possible.)

17. Whether or not the college (or center) is (or has been) involved with computerized guidance, please indicate whether it makes use of computers for any of the following functions:

Payroll	☐ Yes	☐ No	Enrollment statistics	☐ Yes	☐ No
Accounting	☐ Yes	☐ No	Attendance data	☐ Yes	☐ No
Programming class schedules	☐ Yes	☐ No	Instruction	☐ Yes	☐ No
Inventory/supply	☐ Yes	☐ No	Other: _____	☐ Yes	☐ No
			_____	☐ Yes	☐ No

18. Please indicate the name, title, and best mailing address of the person who completed this Survey:

_____

_____

_____

_____

Please use the rest of the space for comments. Return the completed Survey in the envelope provided to: CUNY/IRDOE, 33 West 42nd St., New York, New York 10036, Room 1438.

POSTSECONDARY EDUCATIONAL INSTITUTIONS

Public Two-Year Colleges

Adirondack Community College
Borough of Manhattan Community College
Bronx Community College
Broome Community College
Cayuga County Community College
Clinton Community College
Columbia-Greene Community College
Corning Community College
Dutchess Community College
Erie Community College
Fashion Institute of Technology
Finger Lakes Community College
Fulton Montgomery Community College
Genesee Community College
Herkimer County Community College
Hostos Community College
Hudson Valley Community College
Jamestown Community College
Jefferson Community College
Kingsborough Community College
LaGuardia Community College
Medgar Evers College
Mohawk Valley Community College
Monroe Community College
Nassau Community College
New York City Community College
Niagara County Community College
North Country Community College
Onodaga Community College
Orange County Community College
Queensborough Community College
Rockland Community College
Schenectady Community College
The College of Staten Island
Suffolk Country Community College
Sullivan Country Community College
Tompkins-Cortland Community College
Ulster County Community College
Westchester Community College
State University of Agriculture and Technical Colleges at:
- Alfred
- Canton
- Cobleskill
- Delhi
- Farmingdale
- Morrisville

Private Two-Year Colleges

Academy of Aeronautics
Cazenovia College
The Culinary Institute of America
Harriman College
Hilbert College
Junior College of Albany
Maria College of Albany
Maria Regina College
Mater Dei College
Paul Smith's College of Arts and Sciences
Trocaire College
Villa Maria College

Educational Opportunity Centers (EOAC)

Brooklyn EOAC
Buffalo EOAC
Farmingdale EOAC
Manhattan EOAC
Rochester EOAC
Syracuse EOAC
Capital District EOAC
Westchester EOAC

APPENDIX C

Educational Programs in Correctional
Facilities in New York State.....C1

List of New York State Correctional Facilities.....C5

CASE Institute for Research and Development in Occupational Education
Graduate School, City University of New York

EDUCATIONAL PROGRAMS IN CORRECTIONAL FACILITIES IN NEW YORK STATE

For the purpose of this Survey, educational programs include those designed to increase academic and/or vocational skills of the inmate population through formal and informal arrangements between schools and correctional facilities, among correctional facilities, and within the facility.

In the interest of economy and efficiency, we have designed this Survey to obtain as much information as possible in a manner that requires the least effort on your part. We have attempted to present as many questions as possible in checklist form or as short open-ended questions. As a result, there is little room for your unique experiences or detailed comments. We urge you, therefore, to add pages or append documents, notes, or reports that will give us a clearer understanding of the educational needs of correctional facilities in New York State. Thank you.

DEMOGRAPHIC INFORMATION

The following questions ask you to describe the gross characteristics of the facility.

1. Name of institution: _____

2. Type of facility: _____

_____

3. Sex of the inmate population: ☐ Male ☐ Female ☐ Male and Female

4. Type of offender: ☐ Sentenced ☐ Detainees ☐ Sentenced and Detainees

5. Approximate size of inmate population: _____

6. What is the average length of term of sentenced offenders? _____

7. What is the ethnic distribution of the inmate population?

____% Black ____% Spanish-surnamed ____% White ____% Other; please specify:

_____

8. During any typical month last year, what proportion of inmates were involved in educational/vocational activities? _____

9. Of the inmate population involved in educational activities last year, what percentage:

_____earned credit for courses equivalent to grades 1-8?

_____earned credit for high school (secondary) level courses?

_____earned a high school diploma or GED?

_____earned college credit?

_____earned a two-year college diploma?

_____other; please describe: _____

10. To the best of your knowledge, what proportion of offenders transferred or released, continue in educational programs? _____

EDUCATIONAL FACILITIES AND EQUIPMENT

The following questions are concerned with the institution's facilities, equipment, and staffing as they relate to the conduct and implementation of educational activities.

1. Is there a separate area of the institution allocated to the conduct of educational activities? ☐ No ☐ Yes

2. On what days of the week are classes or shops taught at the facility? ☐ Weekdays only ☐ All week, including weekends ☐ Other; specify: _____

3. During what hours are classes or shops taught? Please specify, including A.M. and P.M. _____

4. How many classrooms are currently devoted to educational purposes primarily? _____

5. How many shops are devoted to vocational (not employment or institutional) activities? _____

   Please specify (check) the kinds of shops that are available:

   ☐ crafts (leisure) ☐ sewing
   ☐ electrical/electronic ☐ data processing
   ☐ drafting ☐ office skills
   ☐ carpentry ☐ other; specify: _____

6. Can inmates study or use the classrooms or shops during times other than when classes are taught? ☐ No ☐ Yes

7. In your opinion, for the existing programs, is the classroom and shop space:
   ☐ Very adequate ☐ Somewhat adequate ☐ Not very adequate
   If you checked somewhat or not very adequate, please explain: _____

8. In your opinion, for the existing programs, are the educational facilities and equipment:
   ☐ Very adequate ☐ Somewhat adequate ☐ Not very adequate
   If you checked somewhat or not very adequate, please explain: _____

9. In your opinion, for the existing programs, are the number and type of shops:
   ☐ Very adequate ☐ Somewhat adequate ☐ Not very adequate
   If you checked somewhat or not very adequate, please explain? _____

10. Does the facility have a library for inmates? ☐ No ☐ Yes
    What hours is the library open? _____
    What days of the week is the library open to the inmate population? _____

11. To whom is the educational director responsible? _____

12. Please describe the educational specialists whose primary affiliation is with the facility. How many:

    full-time instructors are there for academic activities? _____

    full-time instructors are there for vocational activities? _____

    part-time instructors are there for academic activities? _____

    part-time instructors are there for vocational activities? _____

13. How many full-time and part-time instructors come from outside the institution? _____

COOPERATIVE ARRANGEMENTS

This final set of questions is about special educational programs as well as on-going educational activities conducted for inmates, that involve the cooperation of agencies, organizations, and institutions external to the correctional facility. We are interested in all educational levels--elementary, secondary, postsecondary, and correspondence schools--and in all types of programs, including guidance, computers, and so on.

1. In the last three years, what elementary level (grades 1-8) institutions provided services for your inmate population? Specify the:

Name of Institution	Type of Program (e.g., guidance, remedial math)	Nature of Service (e.g., staff, materials)

2. In the last three years, what secondary (high school level) institutions have provided services for your inmate population? Please specify the:

Name of Institution	Type of Program	Nature of Services

3. In the last three years, what postsecondary (community or two-year college, four-year college) institutions have provided educational services for your inmate population?

Name of Institution	Type of Program	Nature of Services

4. In your opinion, are the educational programs conducted by outside agencies:

☐ Very worthwhile ☐ Somewhat worthwhile ☐ Not very worthwhile

If you checked somewhat or not very worthwhile, please explain: _____

_____

5. In the case of programs conducted by outside agencies, were there usually costs to the correctional facility? ☐ No ☐ Yes; if yes; please describe the actual or in-kind contribution: _____

_____

6. In the case of special demonstration programs or activities conducted by outside agencies, what aspects (if any) of the programs remained operative after the initial demonstration period? _____

_____

_____

7. Aside from ongoing funds from the Department of Corrections for educational programs, has the facility received money from other sources (e.g., State Vocational Education Act, Adult Education) for special programs in the last three years? ☐ No ☐ Yes; if yes, please indicate the:

Source of Funds	Year(s)	Type of Program Supported
_____	_____	_____
_____	_____	_____
_____	_____	_____

Thank you for completing this Survey. Although your responses will be anonymous and all data grouped, we would appreciate knowing the name, title, and experience of the person completing the Survey.

Name: _____ Title: _____

Number of years at this facility: _____ Number of years experience in correctional settings: _____

STATE CORRECTIONAL FACILITIES

Albion Correctional Facility
Arthur Kill Correctional Facility
Attica Correctional Facility
Auburn Correctional Facility
Bayview Correctional Facility
Bedford Hills Correctional Facility
Bushwick Correctional Facility
Clinton Correctional Facility and Annex
Coxsackie Correctional Facility
Downstate Correctional Facility
Eastern Correctional Facility
Edgecombe Correctional Facility
Elmira Correctional Facility
and Reception Center
Fishkill Correctional Facility
Fulton Correctional Facility
Georgetown Correctional Facility
Great Meadow Correctional Facility
Green Haven Correctional Facility
Hudson Correctional Facility
Lincoln Correctional Facility
Mid-Orange Correctional Facility
Mt. McGregor Correctional Facility
Ossining/Tappan Correctional Facility
Otisville Correctional Facility
Parkside Correctional Facility
Queensboro Correctional Facility
Rochester Correctional Facility
Taconic Correctional Facility
Wallkill Correctional Facility
Woodbourne Correctional Facility
Camp Adirondack
Camp George Town
Camp Monterey
Camp Pharsalia
Camp Summit